



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,589	06/27/2003	Torsten Niederdrank	P03,0228	8450
26574	7590	04/28/2006	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			ENSEY, BRIAN	
			ART UNIT	PAPER NUMBER
			2615	

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/608,589	NIEDERDRANK, TORSTEN
	Examiner Brian Ensey	Art Unit 2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 February 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-4, 6, 8-12 is/are rejected.
 7) Claim(s) 5, 7 and 13 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 8 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Uvacek U.S. Patent No. 6,154,546.

Regarding claim 1, Uvacek discloses a modular hearing aid device (30), comprising: a microphone module that comprises a module housing (80) and at least one microphone (60); a hearing aid device module that comprises a hearing aid device module housing (30) and at least one microphone (68); wherein the microphone module housing supplements the hearing aid device module housing to form a housing of the hearing aid device having a uniform effect, the microphone module and the hearing aid device module being detachably connectable (See Fig. 1 8 and col. 6, lines 48-60).

Regarding claim 6, Uvacek further discloses the microphone module comprises at least two microphones (60,71) (See Fig. 8).

Regarding claim 8, Uvacek further discloses the microphone module is configured to be simultaneously employed with the microphone of the hearing aid device module (See Fig. 8 and col. 6, lines 48-60).

Regarding claim 10, Uvacek further discloses the hearing aid device module is configured to accept various microphone modules that respectively comprise different acoustic and/or electronic properties (See col. 6, lines 48-60). The module may comprise microphones of different dynamic ranges and, optionally preamplifiers.

Regarding claim 11, Uvacek further discloses the microphone module comprises an electronic interface to the hearing aid device module (See fig 8 and col. 6, lines 48-50). Uvacek uses a direct audio input connection.

Regarding claim 12, Uvacek further discloses the microphone module microphone is acoustically connected via an air interface (probe tube) to receive sound signals emanating externally from the hearing device (See col. 4, lines 45-60).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uvacek as applied to claim 1 above, and further in view of Klope et al. U.S. Patent Application Publication No.2003/0070868.

Regarding claims 2 and 4, Uvacek does not expressly disclose an attenuation-damped connection comprising a damping material for connecting the microphone module and the hearing aid device module. However, Klope disclose an attenuation damping material for an attenuation-damped connection of a microphone in a hearing aid (See Fig. 3 and paragraph

0023). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a damping layer to prevent unwanted vibration (See paragraph 0001).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uvacek in view of Klope.

Regarding claim 3, Uvacek discloses a modular hearing aid device (30), comprising: a microphone module that comprises a module housing (80) and at least one microphone (60); a hearing aid device module that comprises a hearing aid device module housing (30) and at least one microphone (68); wherein the microphone module housing supplements the hearing aid device module housing to form a housing of the hearing aid device having a uniform effect, the microphone module and the hearing aid device module being detachably connectable (See Fig. 1 8 and col. 6, lines 48-60). Uvacek does not expressly disclose an attenuation connection for connecting the microphone module and the hearing aid device module wherein the attenuation damped connection is arranged at at least one oscillatory node of characteristic oscillations of the hearing aid device module housing. However, Klope disclose an attenuation damping material for an attenuation-damped connection of a microphone in a hearing aid (See Fig. 3 and paragraph 0023). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a damping layer to prevent unwanted vibration (See paragraph 0001).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uvacek.

Regarding claim 9, Uvacek discloses a modular hearing aid device (30), comprising: a microphone module that comprises a module housing (80) and at least one microphone (60); a hearing aid device module that comprises a hearing aid device module housing (30) and at least one microphone (68); wherein the microphone module housing supplements the hearing aid

device module housing to form a housing of the hearing aid device having a uniform effect, the microphone module and the hearing aid device module being detachably connectable (See Fig. 1 8 and col. 6, lines 48-60). Uvacek does not expressly disclose the modular hearing aid device is configured such that the microphone of the hearing aid module is deactivated when the microphone module is connected to the hearing aid. However, Uvacek teaches any known switching scheme may be employed to selectively activate one microphone while deactivating the other microphone when the microphone module is attached to the hearing aid module (See col. 6, lines 54-56). It would have been obvious to one of ordinary skill in the art at the time of the invention that the switch circuit may be used to selectively activate or deactivate either the hearing aid module microphone or one of the two microphone module microphones.

Allowable Subject Matter

Claims 5, 7 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 2/27/06 have been fully considered but they are not persuasive.

With respect to the applicant's argument pertaining to **claims 1, 6, 8, 10 and 11** that *Uvacek fails to teach or suggest a microphone module and hearing aid device being detachably*

connectable with the microphone module housing supplementing the hearing aid device module housing to have a uniform effect, the Examiner respectfully disagrees.

The examiner agrees that “uniform effect” is not well defined in the art. However, the Examiner believes the term as defined in the specification is met by the teachings of Uvacek. The microphone module (80) of Uvacek forms a partially curved boot connected to the hearing aid device module (30) via direct audio connections to clearly form a compact structure. While the boot inherently overlaps the outer hearing aid device module housing, it must form a close fit (snap into place col. 4, lines 3-5) to provide a secure connection and therefore provides a uniform effect therefore possibly meets the traditional hearing aid shape to minimize the geometric curves or elements of the device. The Examiner believes that the connected boot also maintains the aesthetic appearance of the hearing aid device. The applicant does not specify that the “uniform effect” must be a complete “edge to edge” connection with no deviation from the shape of the outer housing of the hearing aid module and provide a smooth transition with no discernable changes in the housing shape.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a shape that forms a cohesive whole, possibly having a traditional hearing aid shape and/or minimizes the geometric curves or elements of the device) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to the applicant's argument pertaining to **claim 3** that *the combination of Uvacek and Klope fails to teach or suggest providing the attenuation-damped connection*

arranged at at least one oscillatory node of characteristic oscillations of the hearing aid device module housing, the Examiner respectfully disagrees.

The use of attenuation-damping material as taught by Klope specifically targets transducers (i.e., a microphone) (See Klope paragraph 0023) to “avoid the unwanted cascading amplification (i.e., feedback) caused by vibrations of either the casing or the components of hearing devices, particularly including the hearing aid” (See paragraph 0001). It is well known that the main source of vibration in a hearing aid is due to the “transducers” either a microphone or speaker due to their vibratory nature in converting sound into an electrical signal or vice versa. Therefore, it would be obvious to one of ordinary skill in the art to provide attenuation-damping of the transducer to remove oscillatory node characteristic oscillations of the hearing aid device module housing.

Applicant’s arguments, see pages 8 and 9, filed 2/27/06, with respect to **claims 5 and 7** have been fully considered and are persuasive. The rejection of claims 5 and 7 have been withdrawn.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to **Group Art Unit 2615**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 571-272-7496. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Va. 22313-1450

Or faxed to:

(571) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".
Hand-delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street
Arlington, VA 22314

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**SINH TRAN
SUPERVISORY PATENT EXAMINER**

BKE
April 20, 2006